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EXAMINER

KNOIL, CLIFFORD H

ART UNIT

PAPER NUMBER

2189

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/829,880

Applicant(s)

JOY ET AL.

Examiner

Clifford H Knoll

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-12 and 14-26 is/are rejected.
- 7) ☒ Claim(s) 5,13 and 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-14, 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Momona (US 6434117).

Regarding claims 1 and 9, Momona discloses the method and computer-readable medium comprising computer instructions for translating a bus-generic request for a quality of service connection into a bus-specific request for time-guaranteed delivery services and transmitting the bus-specific request to an intended receiving node on the bus (e.g., col.5, lines 19-24), at the intended receiving node, checking to determine whether sufficient resources are available to allocate an isochronous data channel on the bus and allocating it (e.g., col.6, lines 32-35), notifying the transmitting node and transmitting data packets to the intended receiving node (e.g., col. 6, lines 44-47).

Regarding claims 6 and 14, Momona also discloses periodically transmitting a "keep alive" message, monitoring the "keep alive" message (e.g., col.8, lines 47-54), and in response to detecting the "keep alive" message is no longer being periodically transmitted, deallocating the bus resources (e.g., col.8, lines 61-67).

Regarding claim 7, Momona also discloses an IEEE-1394 serial bus (e.g., col.4, lines 1-4).

Regarding claim 8, Momona also discloses step (2) performed in response to a quality-of-service request made by an application program executing in the transmitting mode (e.g., col.4, lines 20-22).

Regarding claims 23 and 25, Momona discloses a method and a computer-readable medium comprising computer instruction for use on a bus supporting isochronous and asynchronous modes, the steps of establishing an isochronous mode of data communication over a bus and transmitting a plurality of data packets (e.g., col.5, lines 19-24), receiving information regarding the isochronous data channel allocated (e.g., col.6, lines 56-60) and receiving the plurality of data packets (e.g., col.9, lines 14-16).

Regarding claim 24, Momona also discloses setting a flag in the first receiving node indicating that the second receiving node is sharing the allocated isochronous data channel and the first receiving node inhibits deallocation if the flag is set (e.g., col.9, lines 40-50).

Regarding claim 26, Momona discloses transmitting a request for time-guaranteed bandwidth using the isochronous communication mode (e.g., col.9, lines 5-

7), in response to detecting a time-out condition for failing to receive a response to the request transmits data packets to the second computer node using the asynchronous communication mode (e.g., col.11, line 62 – col.12, line 5).

2. Claims 2-4, 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikegawa (US 6538758).

Regarding claims 2 and 10, Ikegawa discloses the method and computer-readable medium comprising computer instructions for translating a bus-generic request for a quality of service connection into a bus-specific request for time-guaranteed delivery services and transmitting the bus-specific request to an intended receiving node on the bus (e.g., col.9, lines 1-5), at the intended receiving node, checking to determine whether sufficient resources are available to allocate an isochronous data channel on the bus and allocating it (e.g., col. 7, lines 1-7, Figure 10B), notifying the transmitting node and transmitting data packets to the intended receiving node (e.g., col. 9, lines 30-31); setting a timer in the transmitting node (e.g., col.9, lines 35-38), and transmitting the data packets to the intended receiving node using asynchronous delivery mode (e.g., col.8, lines 21-27).

Regarding claims 3 and 11, Ikegawa also discloses transmitting the data packets using an asynchronous streaming delivery mode (e.g., col.9, lines 59-64).

Regarding claims 4 and 12, Ikegawa also discloses transmitting the data packets using an asynchronous write operation mode (e.g., col.8, lines 16-20).

3. Claims 15 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Haviland (US 6600756).

Regarding claims 15 and 19, Haviland discloses method and computer-readable medium comprising computer instructions for transmitting data packets using the asynchronous mode of data transmission (e.g., col.3, lines 45-46); detecting that data packets are repeatedly received from the transmitting node and allocating an isochronous data channel on the bus, notifying the transmitting node of the allocated isochronous data channel and transmitting the data packets on the isochronous data channel (e.g., col.3, lines 45-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 17, 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haviland in view of Momona.

Regarding claims 17, 20, and 21, Haviland does not expressly mention the details of sending a "keep alive" message; however this is disclosed by Momona.

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Momona discloses periodically transmitting a "keep alive" message indicating resources have been allocated, monitoring the "keep alive" message (e.g., col.8, lines 47-54), and in response to detecting the "keep alive" message is no longer being periodically transmitted, deallocating the bus resources (e.g., col.8, lines 61-67).

It would be obvious to combine Momona with Haviland because Momona teaches the means to improve the operation of a IEEE-1394 bus system, such as that of Haviland, by disclosing details of isochronous and asynchronous multicast means. Therefore it would be obvious, at the time the invention was made, for a person of ordinary skill in the art to combine Momona with Haviland.

2. Claims 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haviland in view of Ben-Dor (US 2002/0141418).

Regarding claims 18 and 22, Haviland does not mention a common IP address; however this feature is disclosed by Ben-Dor. Ben-Dor discloses a common IP address (e.g., paragraph [0041]).

It would be obvious to combine Ben-Dor with Haviland because Ben-Dor teaches the use of his feature with the IEEE-1394 bus, and also maintaining all functionality of relevant features (e.g., isochronous, asynchronous protocols, see paragraph [0055]). These are precisely the features taught by Haviland, thus the teaching of Ben-Dor is expressly intended for use in a bus apparatus such as Haviland. Therefore it would be

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obvious at the time the invention was made to a person of ordinary skill in the art to combine Ben-Dor with Haviland.

Allowable Subject Matter

Claims 5, 13, 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kwon (US 6430635) discloses a protocol determination. Salazar (US 2002/0133632) discloses a feature for predicting volume of message data. Legallais (US 2003/0078063) discloses wireless-based isochronous resource management.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

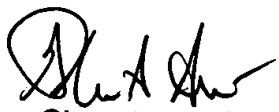
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.

chk


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